

ABSTRACT OF THE DISCLOSURE

Helmet protection methods and systems designed to protect the wearer from not only physical impact but also from non-impact safety risks posed by noxious fumes, fire, lack of
5 oxygen, and particulate matter and the like by creating a positive pressure inside the helmet while still permitting normal human respiration, are presented. More specifically, a helmet, a compressed air canister(s) such as a cartridge or a tank, for example, sensor(s) that may trigger an pressurized air release element that may initiate a flow of breathable air from the canister(s), and an exfiltration mechanism that may permit the increase of air pressure within the helmet such that
10 safety endangering conditions (such as noxious fumes, heat buildup, particulate matter and the like) are prevented from entering inside the helmet but respiration by the human wearer is still possible, are presented.